

FIG. 1

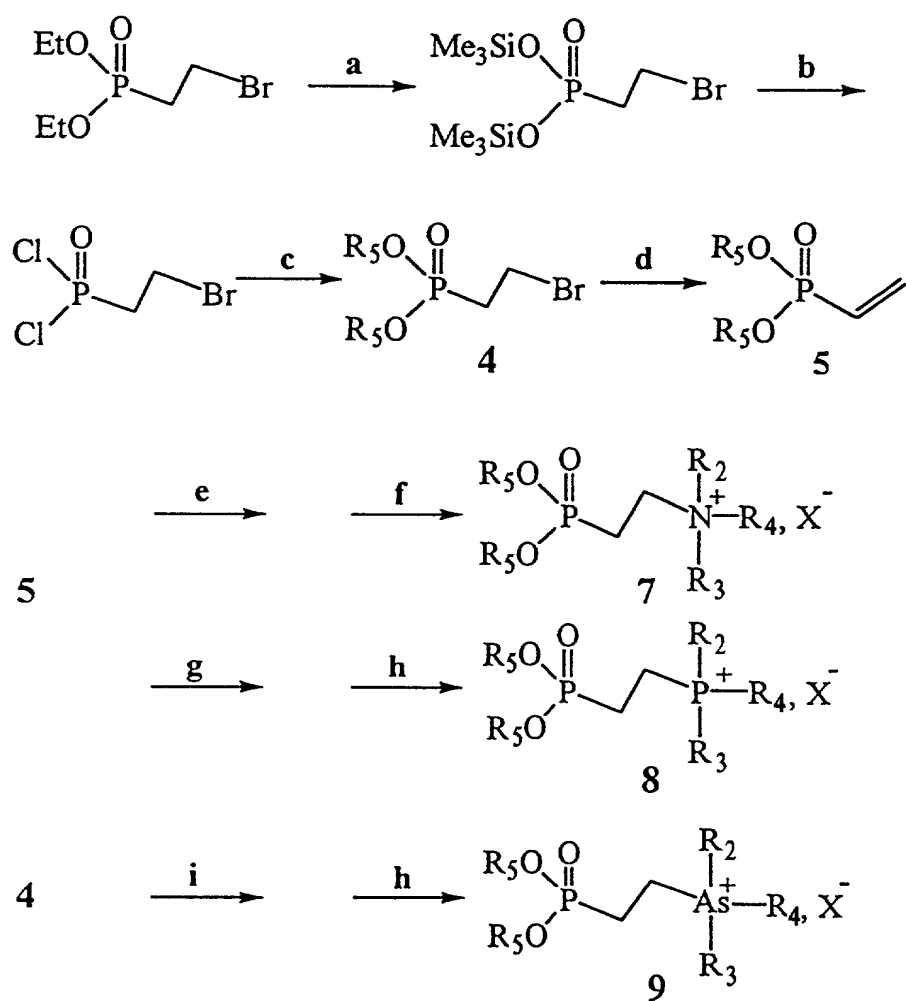


FIG. 2

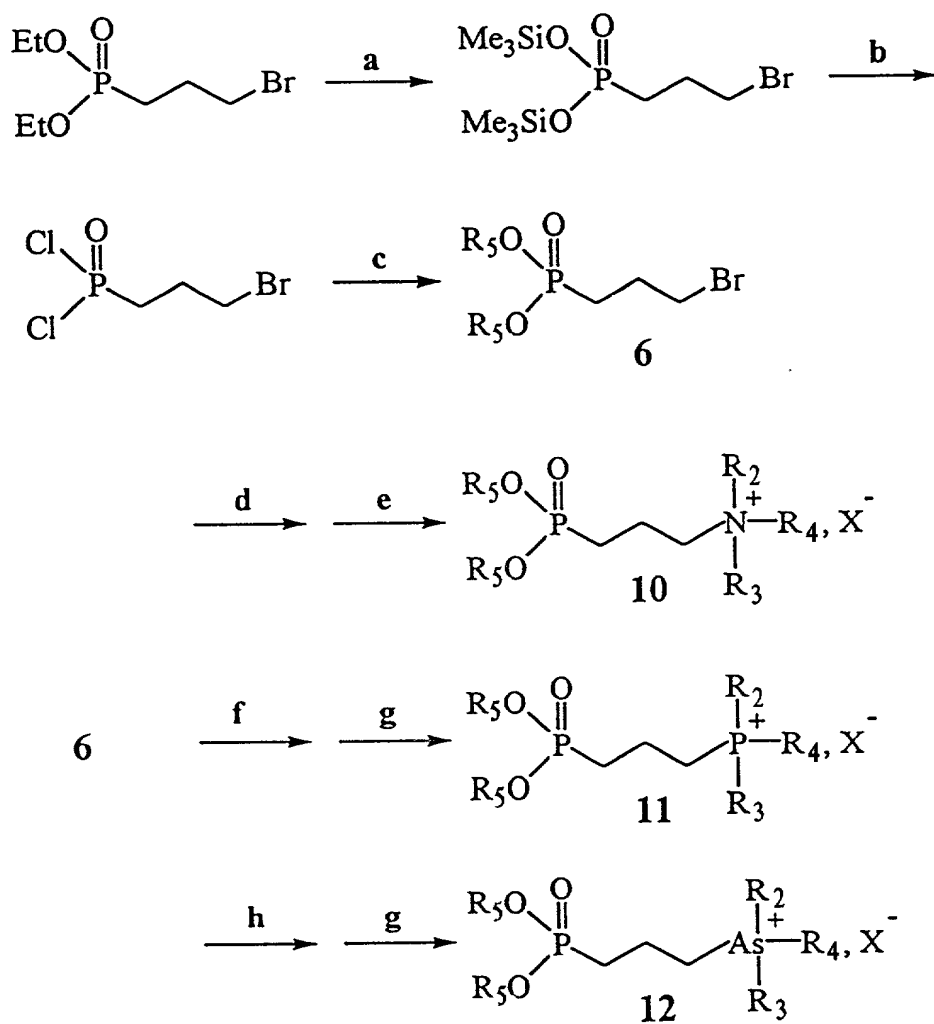


FIG. 3

$$\begin{array}{c}
 \text{R}_5\text{O} \\
 | \\
 \text{R}_5\text{O}-\text{CH}_2-\text{CH}_2-\text{OH} \xrightarrow{\text{a}} \text{R}_5\text{O}-\text{CH}_2-\text{CH}_2-\text{Br} \xrightarrow{\text{b}} \xrightarrow{\text{c}} \text{R}_5\text{O}-\text{CH}_2-\text{CH}_2-\text{A}^+, \text{I}^- \\
 | \\
 \text{R}_5\text{O}
 \end{array}$$

$$\begin{array}{c}
 \text{HO}-\text{CH}_2-\text{CH}_2-\text{Br} \xrightarrow{\text{d}} \text{R}_5-\text{C}(=\text{O})-\text{O}-\text{CH}_2-\text{CH}_2-\text{Br} \xrightarrow{\text{e}} \xrightarrow{\text{f}} \text{R}_5-\text{C}(=\text{O})-\text{O}-\text{CH}_2-\text{CH}_2-\text{A}^+, \text{I}^- \\
 | \\
 \text{HO}
 \end{array}$$

$$\text{Chol}-\text{O}-\text{C}(=\text{O})-\text{Cl} + \text{HO}-\text{CH}_2-\text{CH}_2-\text{I} \xrightarrow{\text{g}} \text{Chol}-\text{O}-\text{C}(=\text{O})-\text{O}-\text{CH}_2-\text{CH}_2-\text{I} \xrightarrow{\text{h}} \text{Chol}-\text{O}-\text{C}(=\text{O})-\text{O}-\text{CH}_2-\text{CH}_2-\text{A}^+, \text{I}^-$$

FIG. 4

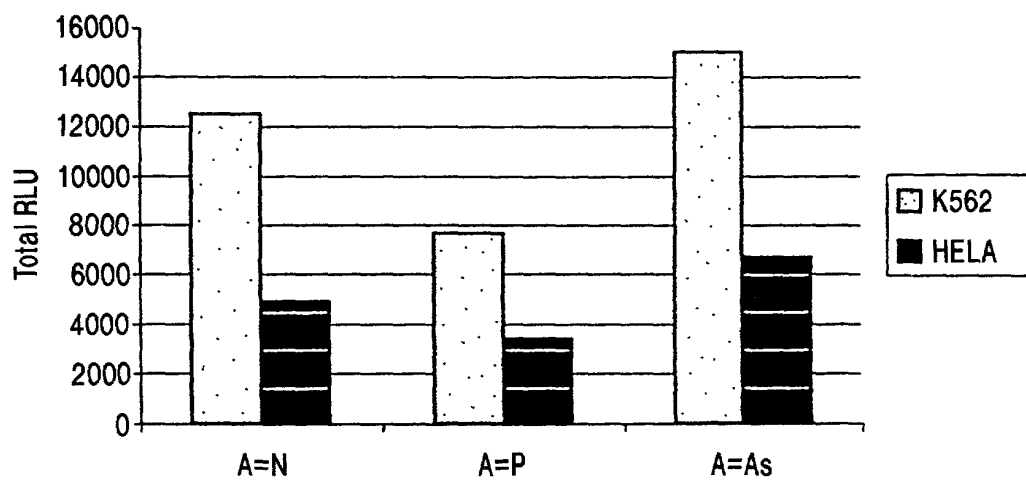


FIG. 5

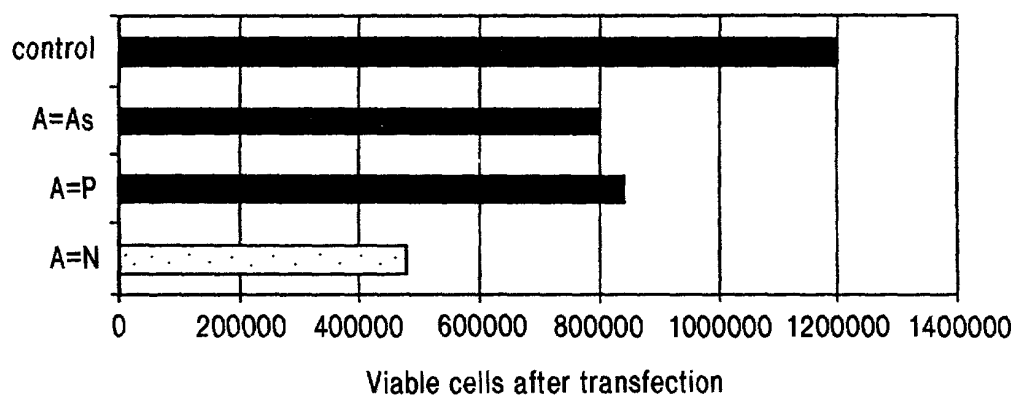


FIG. 6

A=N

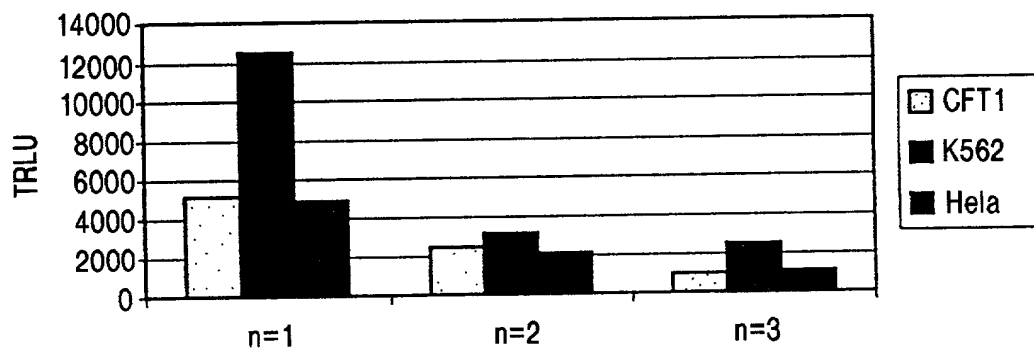


FIG. 7

A=P

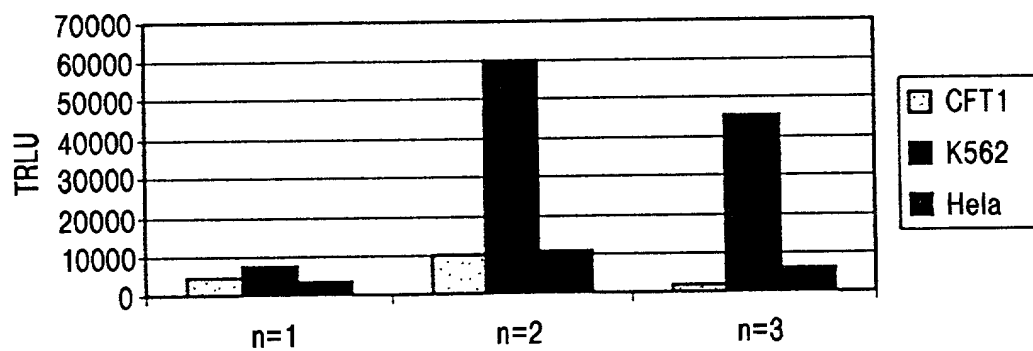


FIG. 8

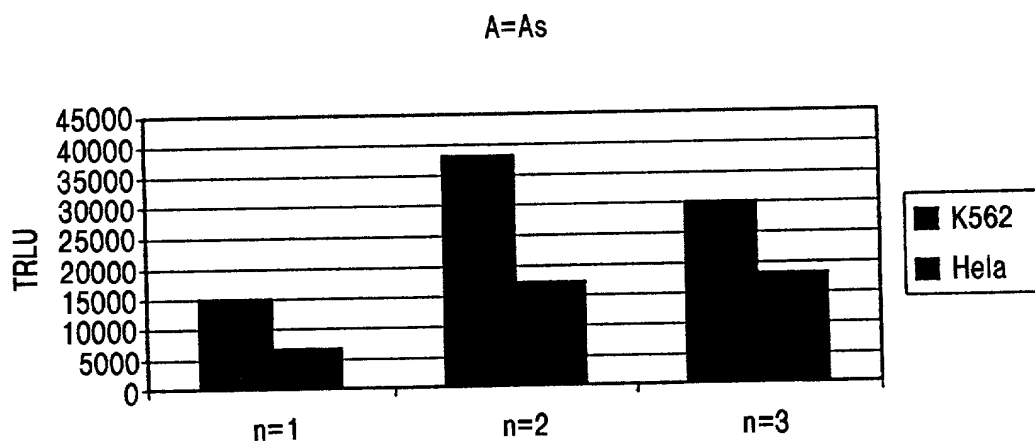


FIG. 9

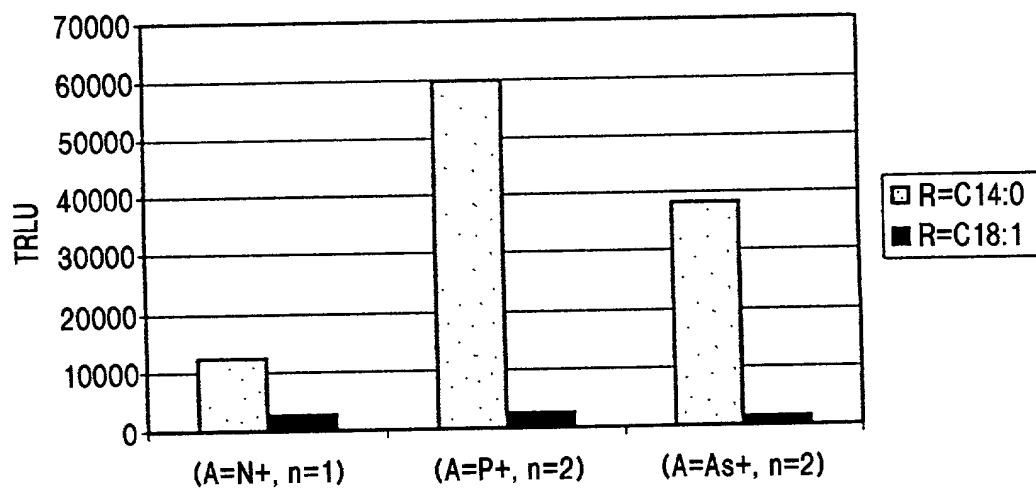


FIG. 10

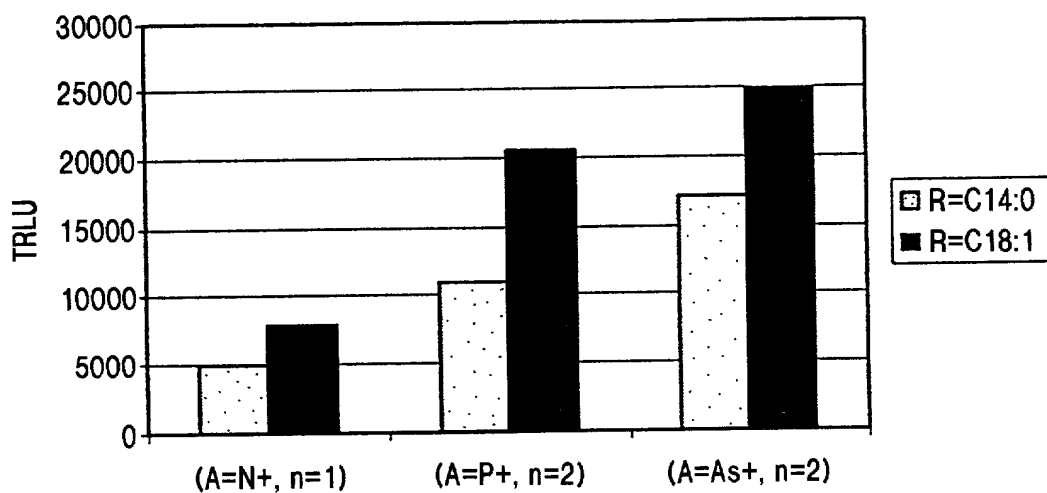


FIG. 11

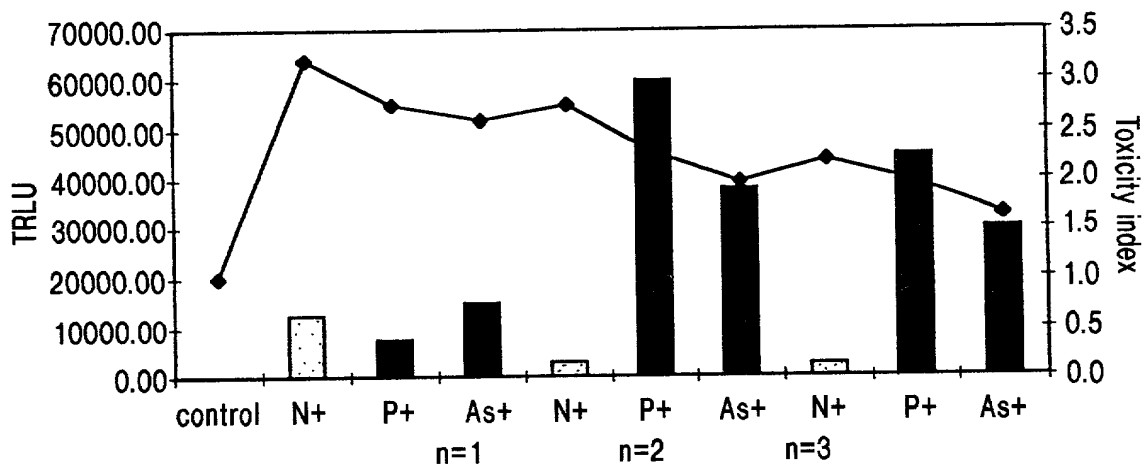


FIG. 12

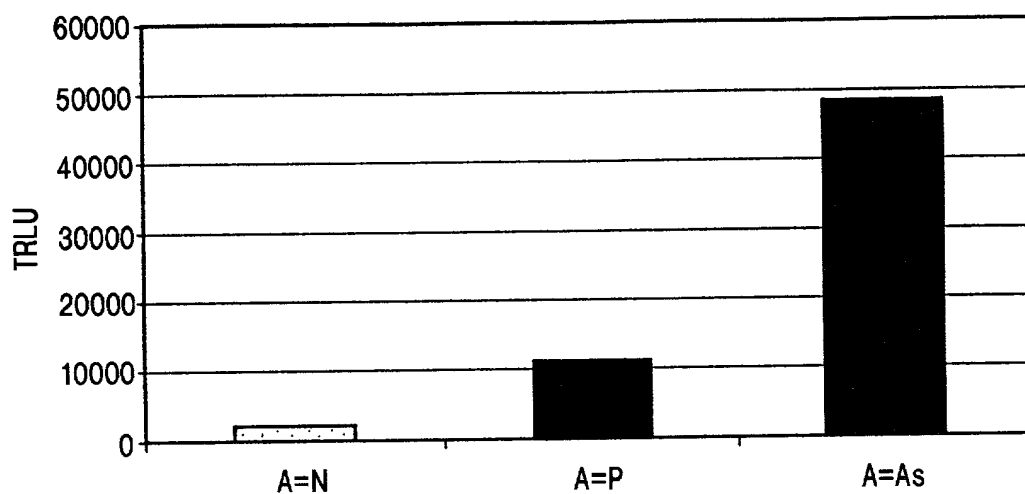


FIG. 13

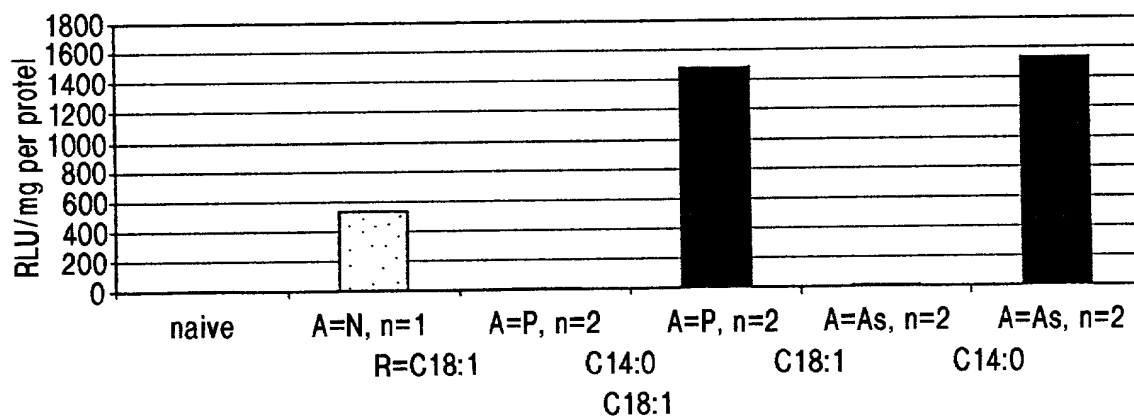


FIG. 14